

# User Manual



## Chateau LTE18 ax (S53UG+5HaxD2HaxD-TC&EG18-EA)

### Safety Warnings

Before you work on any equipment, be aware of the hazards involved with electrical circuitry, and be familiar with standard practices for preventing accidents.

Ultimate disposal of this product should be handled according to all national laws and regulations.

The Installation of the equipment must comply with local and national electrical codes.

Failure to use the correct hardware or to follow the correct procedures could result in a hazardous situation for people and damage to the system.

This product is intended to be installed indoors. Keep this product away from water, fire, humidity, or hot environments.

Use only the power supply and accessories approved by the manufacturer, which can be found in the original packaging of this product.

Read the installation instructions before connecting the system to the power source.

We cannot guarantee that no accidents or damage will occur due to the improper use of the device.

Please use this product with care and operate at your own risk!

In the case of device failure, please disconnect it from power. The fastest way to do so is by unplugging the power plug from the power outlet.

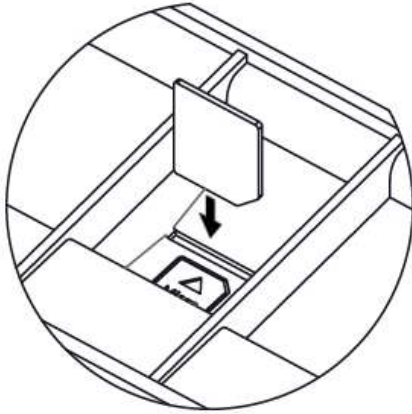
It is the customer's responsibility to follow local country regulations, including operation within legal frequency channels, output power, cabling requirements, and Dynamic Frequency Selection (DFS) requirements. All Mikrotik radio devices must be professionally installed.

**Exposure to Radio Frequency Radiation:** This MikroTik equipment complies with the FCC, IC, and European Union radiation exposure limits set forth for an uncontrolled environment. This MikroTik device should be installed and operated no closer than 20 centimeters from your body, occupational user, or the general public.

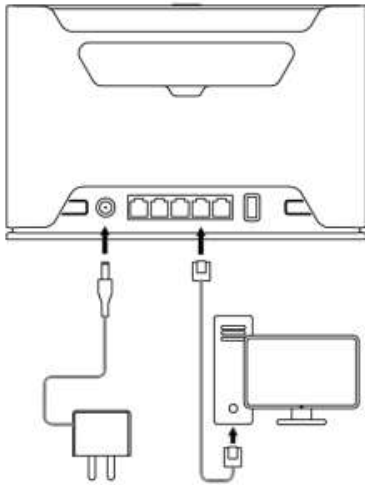
# Quickstart

Please follow these quick steps to set up your device:

- Connect external antennas to the SMA connector (The antennas are provided in the package, see "Antenna usage");
- Insert a micro SIM card into the slot located under the device, the SIM card is not provided with the package;



- Connect your computer to one of the Ethernet ports;

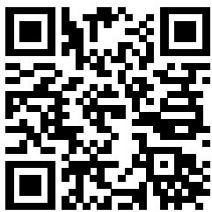


- Connect the power adapter to the DC jack;
- Once the device is powered on and the PC is connected to the device, open <https://192.168.88.1> in your web browser to start the configuration;
- User name: *admin* and there is no password by default you will be logged in automatically to the Quick Set screen (or, for some models, check user and wireless passwords on the sticker);

- We recommend clicking the "Check for updates" button on the right side and updating your RouterOS software to the latest version to ensure the best performance and stability, Must have a valid SIM card inserted;
- To manually update the device, please go to <https://mikrotik.com/download>
- Select the v7 ARM64-packages (routeros-x.x-arm64.npk, wifiwave2-x.x-arm64.npk) for this device and download them onto your PC;
- Upload downloaded packages to the *WebFig Files* menu and reboot the device. By upgrading your RouterOS software to the latest version, you can ensure optimal performance, stability, and security updates;
- To personalize your wireless network, SSID can be changed in the fields "Network Name";
- Choose your country on the left side of the screen in the field "Country", to apply country regulation settings;
- Set up your wireless network password in the field "WiFi Password" the password must be at least eight symbols;
- Set up your router password in the bottom field "Password" to the right and repeat it in the field "Confirm Password", it will be used to log in next time;
- Click on the "Apply Configuration" to save changes;
- The following RouterOS "npk" packages are required for the core functionality of the product: wifiwave2, system.

## Connecting with a mobile app

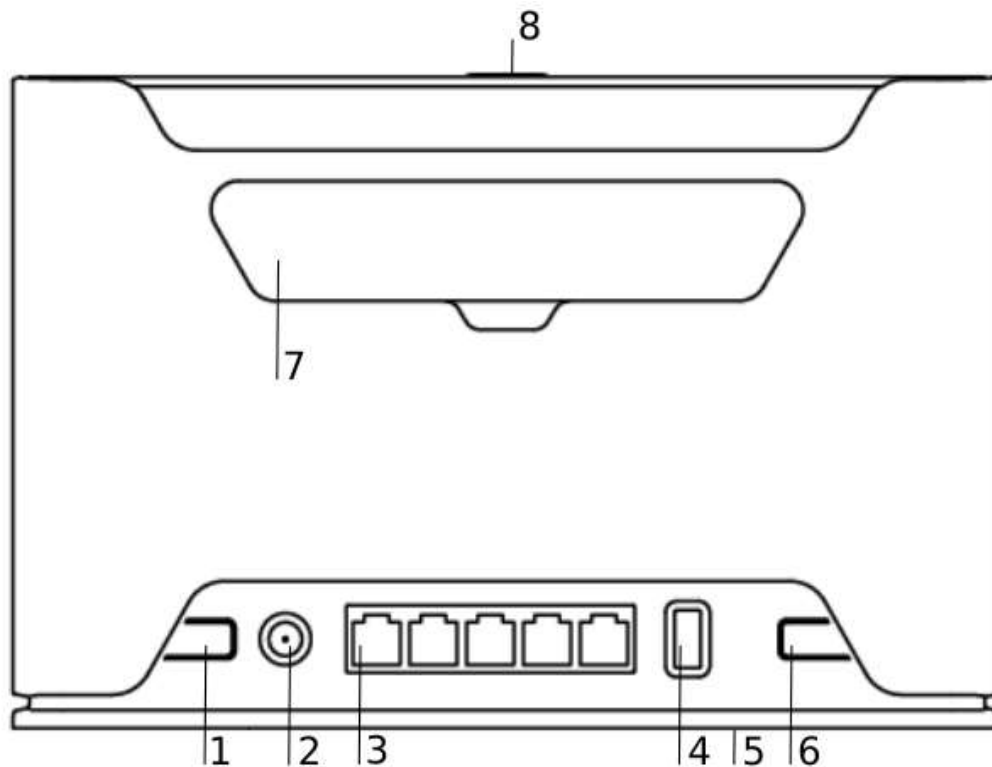
Use your smartphone to access your router through WiFi.



- Insert the SIM card and power it on the device.
- Scan the QR code with your smartphone and choose your preferred OS.
- Connect to the wireless network. SSID starts with MikroTik and has the last digits of the device's MAC address.
- Open application.
- By default, the IP address and user name will be already entered.

- Click Connect to establish a connection to your device through a wireless network.
- Choose Quick setup and the application will guide you through all basic configuration settings in a couple of easy steps.
- An advanced menu is available to fully configure all necessary settings.

## Expansion slots and ports



1. Reset button.
  2. Powering DC jack 2.0 mm.
  3. Five Gigabit ports, supporting automatic cross/straight cable correction (Auto MDI/X). Either straight or crossover cables can be used for connecting to other network devices.
  4. USB type-A.
  5. SIM slot for Micro sim card.
  6. Mode button.
  7. A cover for an external SMA antenna connector is not provided for models with antennas.
  8. WPS Sync button.
- Product code S53UG+5HaxD2HaxD-TC&EG18-EA.
  - CPU Quad-Core IPQ-6010 1.8 GHz.

- CPU architecture ARM 64bit.
- Size of RAM 1 GB.
- RAM type DDR3L.
- Storage 128 MB, NAND.
- A number of 1G Ethernet ports 4.
- A number of 2.5G Ethernet ports 1.
- Micro SIM slots 1.
- USB 1 USB 3.0 type A.
- Switch chip model IPQ-6010.
- Wireless interface model QCN-5022 (2.4 GHz), QCN-5052 (5 GHz).
- Wireless 2.4 GHz 802.11ax dual-chain, 5 GHz 802.11ax dual-chain.
- Wireless antenna max gain 2.4 GHz (3 dBi), 5 GHz (6 dBi).
- LTE category 18 (1.2Gbps Downlink, 150Mbps Uplink).
- LTE modem EG18-EA.
- TAC 86981604.
- LTE antenna gain 4 dBi.
- LTE FDD bands 1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 7 (2600MHz) / 8 (900 MHz) / 20 (800MHz) / 28 (700MHz).
- LTE TDD bands 38 (2600MHz) / 40 (2300MHz) / 41 (2500MHz).
- 3G Category R8 (42.2Mbps Downlink, 11.2Mbps Uplink).
- 3G Bands 1 (2100MHz) / 3 (1800MHz) / 5 (850MHz) / 8 (900MHz).
- Dimensions 240 x 156 x 44 mm.
- Operating system RouterOS v7, License level 4.
- Operating temperature -40°C to +65°C.

## Mounting

The device is designed to be used indoors, by placing it on the desktop.

We recommend using CAT5 shielded cable. When using and installing this device please pay attention to the Maximum Permissible Exposure (MPE) safety distance with a minimum of 20 cm between the radiator and your body.

# Powering

- A number of DC inputs 1.
- DC jack input Voltage 12-28 V.
- Power adapter nominal voltage 24 V.
- Power adapter nominal current 1.2 A.
- Max power consumption without attachments 16 W.
- Max power consumption 19 W.

# Configuration

We recommend checking for updates frequently to receive the latest updates for your RouterOS software to ensure the best performance and stability.

RouterOS includes many configuration options in addition to what is described in this document. We suggest starting here to get yourself accustomed to the possibilities: <https://mt.lv/help>. In case an IP connection is not available, the Winbox tool (<https://mt.lv/winbox>) can be used to connect to the MAC address of the device from the LAN side (all access is blocked from the Internet port by default).

For recovery purposes, it is possible to boot the device for reinstallation, see the section Buttons and Jumpers.

## Mode button

The mode button is located on the back of the unit, on the right side.

The Default configuration for the Mode button is dark mode - to turn off all LEDs. The button can be configured in RouterOS to run any user-specified scripts.

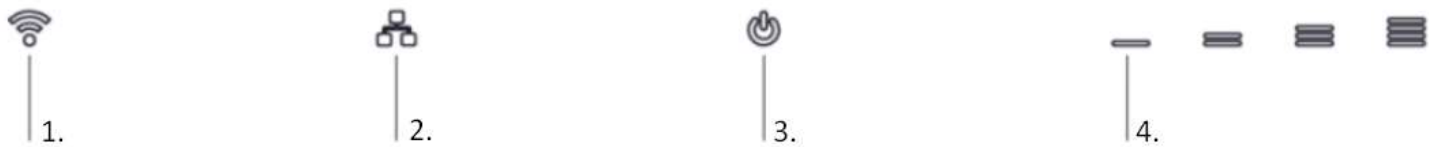
## Sync button

The sync button is located on the top of the unit. The WPS Sync button, if configured on the wireless interface, can be used to connect new clients.



- Press and hold the WPS button for 1 – 5 seconds to enable WPS for wireless interfaces.

# Front LED status



1. Wireless network activity.
2. Ethernet port activity.
3. System LED.
4. Signal strength.

Cellular connection technology based on the System LED color:

Red: GSM

Yellow: 3G

Blue: LTE

Green: 5G NSA

Violet: 5G SA

When LTE is not connected to the network, the system LED will blink red to indicate that there is some issue with the LTE connection. If the LTE interface is intentionally disabled (not being used), the system LED will glow blue.

# SIM slot usage



SIM card slot is designed to use with Micro SIM cards.

Nano SIM cards have different thicknesses, usage with an adapter is not recommended.

# Reset button

The reset button has three functions:

- Hold this button during boot time until the LED light starts flashing, and release the button to reset the RouterOS configuration (total 5 seconds).

- Keep holding for 5 more seconds, LED turns solid, release now to turn on CAP mode. The device will now look for a CAPsMAN server (total of 10 seconds).
- Or Keep holding the button for 5 more seconds until the LED turns off, then release it to make the RouterBOARD look for Netinstall servers (total 15 seconds).  
Regardless of the above option used, the system will load the backup RouterBOOT loader if the button is pressed before power is applied to the device. Useful for RouterBOOT debugging and recovery.

Netinstall

When performing Netinstall, make sure to use the latest v7 version of both RouterOS with the additional package wifivave2-x.x-arm64.npk must be installed files and the Netinstall software.

## Accessories

The package includes the following accessories that come with the device:

- ADAPT1\_ EU/US Switching Power Supply 24V, 1.2A.
- CAB3\_ CAT5E UTP Flat Cable, 8P8C, AWG32, 1.5m.

## Antenna usage

External antenna sockets are located on the back of the device. Device comes with connected wireless antennas, LTE antennas are not provided within the package.

Operating system support

The device supports RouterOS software version v7. The specific factory-installed version number is indicated in the RouterOS menu /system resource. Other operating systems have not been tested.

To avoid pollution of the environment, please separate the device from household waste and dispose of it in a safe manner, such as in designated waste disposal sites. Familiarize yourself with the procedures for the proper transportation of the equipment to the designated disposal sites in your area.



## UKCA marking



## CE Declaration of Conformity

B G	С настоящото Mikrotīkls SIA декларира, че този тип радиосъоръжение S53UG+5HaxD2HaxD-TC&EG18-EA е в съответствие с Директива 2014/53/ЕС. Цялостният текст на ЕС декларацията за съответствие може да се намери на следния интернет адрес: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
C S	Tímto Mikrotīkls SIA prohlašuje, že typ rádiového zařízení S53UG+5HaxD2HaxD-TC&EG18-EA je v souladu se směrnicí 2014/53/EU. Úplné znění EU prohlášení o shodě je k dispozici na této internetové adrese: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
D A	Hermed erklærer Mikrotīkls SIA, at radioudstyrstypen S53UG+5HaxD2HaxD-TC&EG18-EA er i overensstemmelse med direktiv 2014/53/EU. EU-overensstemmelseserklæringens fulde tekst kan findes på følgende internetadresse: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
D E	Hiermit erklärt Mikrotīkls SIA, dass der Funkanlagentyp S53UG+5HaxD2HaxD-TC&EG18-EA der Richtlinie 2014/53/EU entspricht. Der vollständige Text der EU-Konformitätserklärung ist unter der folgenden Internetadresse verfügbar: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
E L	Με την παρούσα ο/η Mikrotīkls SIA, δηλώνει ότι ο ραδιοεξοπλισμός S53UG+5HaxD2HaxD-TC&EG18-EA πληροί την οδηγία 2014/53/ΕΕ. Το πλήρες κείμενο της δήλωσης συμμόρφωσης ΕΕ διατίθεται στην ακόλουθη ιστοσελίδα στο διαδίκτυο: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
E N	Hereby, Mikrotīkls SIA declares that the radio equipment type S53UG+5HaxD2HaxD-TC&EG18-EA is in compliance with Directive 2014/53/EU. The full text of the EU declaration of conformity is available at the following internet address: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
E S	Por la presente, Mikrotīkls SIA declara que el tipo de equipo radioeléctrico S53UG+5HaxD2HaxD-TC&EG18-EA es conforme con la Directiva 2014/53/UE. El texto completo de la declaración UE de conformidad está disponible en la dirección Internet siguiente: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
E T	Käesolevaga deklareerib Mikrotīkls SIA, et käesolev raadioseadme tüüp S53UG+5HaxD2HaxD-TC&EG18-EA vastab direktiivi 2014/53/EL nõuetele. ELi

	vastavusdeklaratsiooni täielik tekst on kättesaadav järgmisel internetiaadressil: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
F I	Mikrotīkls SIA vakuuttaa, että radiolaitetyyppi S53UG+5HaxD2HaxD-TC&EG18-EA on direktiivin 2014/53/EU mukainen. EU-vaatimustenmukaisuusvakuutuksen täysimittainen teksti on saatavilla seuraavassa internetosoitteessa: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
F R	Le soussigné, Mikrotīkls SIA, déclare que l'équipement radioélectrique du type S53UG+5HaxD2HaxD-TC&EG18-EA est conforme à la directive 2014/53/UE. Le texte complet de la déclaration UE de conformité est disponible à l'adresse internet suivante: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
H R	Mikrotīkls SIA ovime izjavljuje da je radijska oprema tipa S53UG+5HaxD2HaxD-TC&EG18-EA u skladu s Direktivom 2014/53/EU. Cjeloviti tekst EU izjave o sukladnosti dostupan je na sljedećoj internetskoj adresi: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
H U	Mikrotīkls SIA igazolja, hogy a S53UG+5HaxD2HaxD-TC&EG18-EA típusú rádióberendezés megfelel a 2014/53/EU irányelvnek. Az EU-megfelelőségi nyilatkozat teljes szövege elérhető a következő internetes címen: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
I T	Il fabbricante, Mikrotīkls SIA, dichiara che il tipo di apparecchiatura radio S53UG+5HaxD2HaxD-TC&EG18-EA è conforme alla direttiva 2014/53/UE. Il testo completo della dichiarazione di conformità UE è disponibile al seguente indirizzo Internet: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
I S	Hér með lýsir Mikrotīkls SIA því yfir að S53UG+5HaxD2HaxD-TC&EG18-EA er í samræmi við grunnkröfur og aðrar kröfur, sem gerðar eru í tilskipun 2014/53/EU. Fullur texti ESB samræmisyfirlýsingar er að finna á eftirfarandi veffangi: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
L T	Aš, Mikrotīkls SIA, patvirtinu, kad radijo įrenginių tipas S53UG+5HaxD2HaxD-TC&EG18-EA atitinka Direktyvą 2014/53/ES. Visas ES atitikties deklaracijos tekstas prieinamas šiuo interneto adresu: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
L V	Ar šo Mikrotīkls SIA deklarē, ka radioiekārta S53UG+5HaxD2HaxD-TC&EG18-EA atbilst Direktīvai 2014/53/ES. Pilns ES atbilstības deklarācijas teksts ir pieejams šādā interneta vietnē: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
M T	B'dan, Mikrotīkls SIA, niddikjara li dan it-tip ta' tagħmir tar-radju S53UG+5HaxD2HaxD-TC&EG18-EA huwa konformi mad-Direttiva 2014/53/UE. It-test kollu tad-dikjarazzjoni ta' konformità tal-UE huwa disponibbli f'dan l-indirizz tal-Internet li

	ğej: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
N L	Hierbij verklaar ik, Mikrotīkls SIA, dat het type radioapparatuur S53UG+5HaxD2HaxD-TC&EG18-EA conform is met Richtlijn 2014/53/EU. De volledige tekst van de EU-conformiteitsverklaring kan worden geraadpleegd op het volgende internetadres: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
N O	Mikrotīkls SIA erklærer herved at utstyret S53UG+5HaxD2HaxD-TC&EG18-EA er i samsvar med de grunnleggende krav og øvrige relevante krav i direktiv 2014/53/EU. Den fulle teksten til EU-samsvarserklæringen er tilgjengelig på følgende internettadresse: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
P L	Mikrotīkls SIA niniejszym oświadcza, że typ urządzenia radiowego S53UG+5HaxD2HaxD-TC&EG18-EA jest zgodny z dyrektywą 2014/53/UE. Pełny tekst deklaracji zgodności UE jest dostępny pod następującym adresem internetowym: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
P T	O(a) abaixo assinado(a) Mikrotīkls SIA declara que o presente tipo de equipamento de rádio S53UG+5HaxD2HaxD-TC&EG18-EA está em conformidade com a Diretiva 2014/53/UE. O texto integral da declaração de conformidade está disponível no seguinte endereço de Internet: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
R O	Prin prezenta, Mikrotīkls SIA declară că tipul de echipamente radio S53UG+5HaxD2HaxD-TC&EG18-EA este în conformitate cu Directiva 2014/53/UE. Textul integral al declarației UE de conformitate este disponibil la următoarea adresă internet: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
S K	Mikrotīkls SIA týmto vyhlasuje, že rádiové zariadenie typu S53UG+5HaxD2HaxD-TC&EG18-EA je v súlade so smernicou 2014/53/EÚ. Úplné EÚ vyhlásenie o zhode je k dispozícii na tejto internetovej adrese: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
S L	Mikrotīkls SIA potrjuje, da je tip radijske opreme S53UG+5HaxD2HaxD-TC&EG18-EA skladen z Direktivo 2014/53/EU. Celotno besedilo izjave EU o skladnosti je na voljo na naslednjem spletnem naslovu: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>
S V	Härmed försäkrar Mikrotīkls SIA att denna typ av radioutrustning S53UG+5HaxD2HaxD-TC&EG18-EA överensstämmer med direktiv 2014/53/EU. Den fullständiga texten till EU-försäkran om överensstämmelse finns på följande webbadress: <a href="https://mikrotik.com/products">https://mikrotik.com/products</a>

## WLAN/WCDMA/LTE


	WLAN	2412-2472 MHz /
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<p>Operating Frequency / Maximum output power</p> <p>Betriebsfrequenz / maximale Ausgangsleistung</p> <p>Fréquence de fonctionnement / puissance de sortie maximale</p> <p>Frequenza operativa / massima potenza di uscita</p> <p>Frecuencia de funcionamiento / potencia de salida máxima</p> <p>Рабочая частота / максимальная выходная мощность</p>		20dBm
	WLAN	5150-5250 MHz / 23 dBm
	WLAN	5250-5350 MHz / 20 dBm
	WLAN	5470-5725 MHz / 27 dBm
	WLAN	5725-5875 MHz / 14 dBm
	WCDMA Band I	2100 MHz / 24dBm ± 2.7 dB
	WCDMA Band III	1800 MHz / 24dBm ± 2.7 dB
	WCDMA Band V	850 MHz / 24dBm ± 2.7 dB
	WCDMA Band VIII	900 MHz / 24dBm ± 2.7 dB
	LTE Band 1	2100 MHz / 23dBm ± 2.7 dB
	LTE Band 3	1800 MHz / 23dBm ± 2.7 dB
	LTE Band 7	2600 MHz / 23dBm ± 2.7 dB
	LTE Band 8	900 MHz / 23dBm ± 2.7 dB
LTE Band 20	800 MHz / 23dBm ± 2.7 dB	

	LTE Band 28	700 MHz / 23dBm ± 2.7 dB
	LTE Band 38	2600 MHz / 23dBm ± 2.7 dB
	LTE Band 40	2300 MHz / 23dBm ± 2.7 dB

This MikroTik device meets Maximum TX power limits per ETSI regulations. For more detailed information see Declaration of Conformity above / Dieses MikroTik-Gerät erfüllt die maximalen Sendeleistungsgrenzwerte gemäß ETSI-Bestimmungen. Weitere Informationen finden Sie oben in der Konformitätserklärung. Nähere Informationen finden Sie oben in der Konformitätserklärung / Cet appareil MikroTik respecte les limites de puissance TX maximale via les réglementations ETSI. Pour plus d'informations, voir la déclaration de conformité ci-dessus / Questo dispositivo MikroTik soddisfa i limiti di potenza massima TX tramite le normative ETSI. Per informazioni più dettagliate consultare la Dichiarazione di conformità sopra / Este dispositivo MikroTik cumple con los límites máximos de potencia TX a través de las normas ETSI. Para obtener información más detallada, consulte la Declaración de conformidad anterior / Это устройство MikroTik соответствует ограничениям максимальной мощности передачи согласно правилам ETSI. Для получения более подробной информации см. Декларацию соответствия выше.

The WLAN function for this device is restricted to indoor use only when operating in the 5150 to 5350 MHz frequency range. / Die WLAN-Funktion dieses Geräts ist nur für die Verwendung in Innenräumen im Frequenzbereich 5150 bis 5350 MHz beschränkt. / La fonction WLAN de cet appareil est limitée à une utilisation en intérieur uniquement lorsqu'il fonctionne dans la gamme de fréquences 5150 à 5350 MHz. / La funzione WLAN per questo dispositivo è limitata all'uso interno solo quando si opera nella gamma di frequenza da 5150 a 5350 MHz. / La función WLAN para este dispositivo está restringida al uso en interiores solo cuando se opera en el rango de frecuencia de 5150 a 5350 MHz. / Функция WLAN для этого устройства ограничена использованием внутри помещения только при работе в диапазоне частот от 5150 до 5350 МГц.

	AT	BE	BG	CH	CY	CZ	DE
	DK	EE	EL	ES	FI	FR	HR
	HU	IE	IS	IT	LI	LT	LU
	LV	MT	NL	NO	PL	PT	RO
	SE	SI	SK	TR	UK(NI)		

***(EN) Technical Specifications / (DE) Technische Spezifikationen / (FR) Spécifications techniques / (IT) Specifiche tecniche / (ES) Especificaciones técnicas / (RU) Технические характеристики:***

<b>(EN) Product Power Input Options (DE) Produkt Stromquellen Optionen (FR) Options d'entrée d'alimentation du produit (IT) Opzioni di ingresso alimentazione del prodotto (ES) Opciones de entrada de energía del producto (RU) Параметры входной мощности продукта</b>	<b>(EN) DC Adapter Output Specification (DE) Ausgangsspezifikationen des Gleichstromadapters (FR) Spécifications de sortie de l'adaptateur de courant continu (IT) Specifiche di uscita dell'adattatore di corrente continua (ES) Especificaciones de salida del adaptador de corriente continua (RU) Выходные характеристики адаптера постоянного тока</b>		<b>(EN) IP class of the enclosure (DE) IP-Klasse des Gehäuses (FR) Classe IP du boîtier (IT) Classe IP della custodia (ES) Clase de IP del recinto (RU) Класс защиты корпуса IP</b>	<b>(EN) Operating Temperature (DE) Betriebstemperatur (FR) température de fonctionnement (IT) temperatura di esercizio (ES) Temperatura de funcionamiento (RU) Рабочая Температура</b>
	Voltage, V	Current, A		
DC Jack (12 - 28 V DC)	24	1.2	IP20	±0°..+70°C